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ABSTRACT

This bulletin contains brief summaries from the full report, "Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 1973," obtainable from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Data tables showing trends in federal obligations to universities and colleges during fiscal years 1963-73, changes in federal obligations to universities and colleges by agency for fiscal year 1972-73 and changes in federal research and development obligations to universities and colleges by agency for fiscal year 1972-73 are included. Total federal obligations to the 100 universities and colleges receiving the largest amounts for fiscal year 1973 are presented in a table with the amounts shown representing awards to individual institutions. (EB)

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nsf SCIENCE RESOURCES STUDIES HIGHLIGHTS

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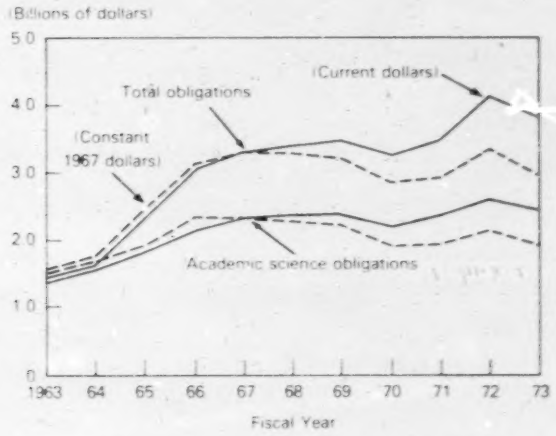
Federal Funding In Higher Education: Academic Science Shows Decline In FY 1973

- Total Federal support to universities and colleges declined by 7 percent to $3,823 million during fiscal year 1973, the first decline since 1970.
- Funds for academic science activities amounted to $2,463 million, 5 percent below the total reported for 1972. Nonscience obligations also dropped in 1973, declining by 11 percent to $1,360 million.
- During 1973 academic research and development rose by 1 percent to $1,870 million. Support for R&D plant was $43 million—up 17 percent.
- Between 1972 and 1973 academic R&D support in the life sciences increased by 4 percent to $934 million. Engineering, with $204 million in R&D funding, went up by 6 percent. All other major fields were at lower funding levels in 1973 than in 1972—with the largest relative decline in the social sciences.

The lower funding level in 1973 can in large part be attributed to the fact that in 1972 obligations for certain HEW programs, notably the College Work-Study Program, were "forward funded"—i.e., the funds were obligated in 1972 but designated for use in 1973.

Trends in Federal obligations to universities and colleges: FY 1963-73



SOURCE: National Science Foundation

- Two academic science program areas, *fellowships and traineeships* and *general support for science*, experienced substantial reductions—26 percent and 53 percent, respectively.
- Although Federal support to the first 100 recipients fell by 4 percent ($94 million) from 1972 to 1973, the relative concentration of funds for the first-100 group increased from 65 percent to 67 percent of total obligations to all universities and colleges.

Total Program Support

In 1973 Federal obligations (exclusive of loans) to institutions of higher education fell by $308 million, or 7 percent. The 1972-73 decline followed a 2-year period of growth in which Federal academic support showed yearly gains of 8 percent and 18 percent, respectively. When measured in constant 1967 dollars, the 1973 obligation total represented a decrease of 11 percent from the 1972 level of funding.

The 1973 drop in Federal support to universities and colleges was largely the result of a decrease in funds from the Department of Health, Education, and Welfare (HEW). HEW, which finances two-thirds of the Federal total for higher education programs, reported a reduction of $267 million in 1973. Over three-fourths of the HEW decline reflected reduced funding for activities sponsored by the Office of Education (OE).

Other significant decreases were posted by the National Science Foundation (NSF), down $40 million primarily in

Federal obligations to universities and colleges: FY 1971-73

(Millions of dollars)

Type of program	1971	1972	1973
Total	$3,967.9	$4,130.6	$3,822.9
Academic science	2,883.1	2,599.0	2,463.1
Research and development	1,941.8	1,853.0	1,870.5
R&D plant	29.9	36.9	43.3
Fellowships, traineeships, and training grants	421.0	487.9	287.2
General support for science	99.7	83.3	39.0
Other science	241.1	237.9	223.1
Nonscience activities	1,084.9	1,531.6	1,359.8

Prepared in the Universities and Nonprofit Institutions Studies Group, Division of Science Resources Studies

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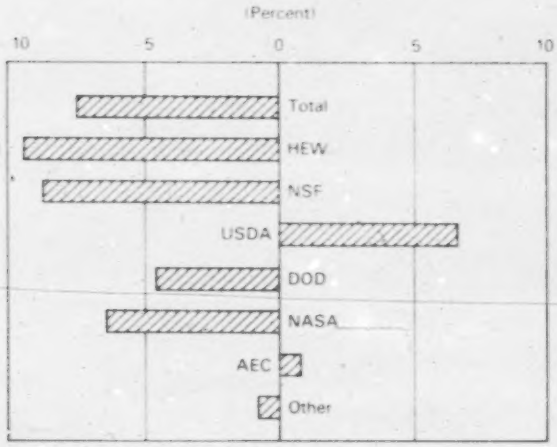
Changes in Federal obligations to universities and colleges, by agency: FY 1972-73



SOURCE: National Science Foundation

science education; the Department of Defense (DOD), down $11 million; and the National Aeronautics and Space Administration (NASA), down $8 million. The largest increase in support to the academic sector was provided by the Department of Agriculture (USDA) which evidenced a gain of $18 million. In 1973, for the first time, USDA ranked third among the 14 supporting agencies, replacing DOD which had held that position in prior years.

Institution Ranking

In 1973 the 100 leading recipients of Federal funds were awarded $2,576 million, two-thirds of the Federal higher education total. Although the share of total support represented by the top 100 was 2 percentage points higher than in 1972, the 1973 dollar total for the first-100 institutions was 4 percent below the 1972 level. Approximately two out of every three institutions in the top-100 group recorded a decline from 1972 to 1973.

The two leading institutions, however, registered substantial increases in this period. The Massachusetts Institute of Technology received $126 million in 1973, 12 percent more than in 1972. Most of the MIT gain was in the R&D area—a $9 million increase in R&D funds and a $5 million increase in R&D plant, $3 million of which was directed to a new center for cancer biology. On the other hand, the $17 million increase in funds to the University of Wisconsin-Madison was primarily for nonscience activities—$11 million in support of a health sciences center and $4 million for a new nursing school facility.

Academic Science Activities

Academic science program support in 1973 dropped to a level of $2,463 million, a decline of $136 million (5 percent). When adjusted for inflation, the decline is the lowest since 1965.

Within academic science, research and development and R&D plant were the only components to show increased Federal support from 1972 to 1973, rising 1 percent and 17 percent, respectively. Other academic science program areas registered declines in 1973. Funds for fellowships, traineeships, and training grants declined by 26 percent, while general support for science funds were reduced by 53 percent.

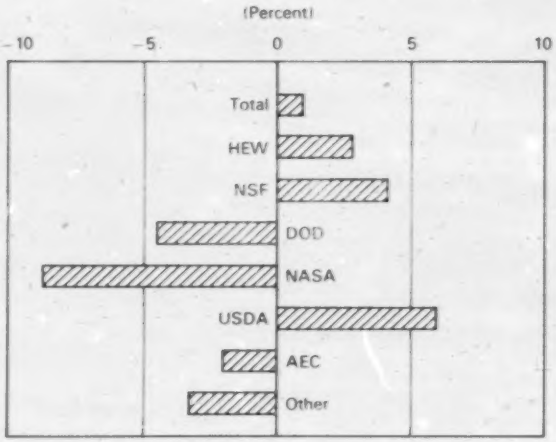
Obligations for the total R&D effort, including operations and plant, now comprise over three-fourths of total Federal academic science funding, the highest share in the 1963-73 period. The steady increase in the R&D share during that period reflects to a large degree the diminution in science-education support.

Research and Development

During 1973 Federal funds for academically based research and development totaled $1,870 million, an increase of 1 percent over the 1972 level. In constant dollars the 1973 figure is nearly 3 percent below 1972. The reduced growth in 1973 of academic research and development reflects a reversal of the upward trend in the prior two years when significant increases were shown in terms of both current and constant dollars.

From 1972 to 1974 the two largest Federal sponsors of academic R&D programs, HEW and NSF, increased their support to this sector. HEW obligations rose from $879 million in 1972 to $904 million in 1973, a 3-percent gain, almost all in the National Institutes of Health (NIH) program support. NSF

Changes in Federal R&D obligations to universities and colleges, by agency: FY 1972-73



SOURCE: National Science Foundation

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Total Federal obligations to the 100 universities and colleges receiving the largest amounts: FY 1973[1]

[Dollars in thousands]

Institutions (Ranked by total Federal obligations)	State	Total
Total for 100 universities and colleges		$2,575,670
1 Massachusetts Institute of Technology	Mass	125,530
2 University of Wisconsin—Madison	Wis	79,554
3 University of Washington	Wash	67,258
4 Harvard University	Mass	61,405
5 University of California—Los Angeles	Calif	60,884
6 University of California—Berkeley	Calif	58,419
7 Howard University	D.C.	57,794
8 University of Minnesota	Minn	57,614
9 University of Michigan	Mich	56,880
10 Stanford University	Calif	56,861
11 Johns Hopkins University	Md	56,062
12 University of California—San Diego	Calif	55,214
13 Columbia University	N.Y.	52,817
14 University of Pennsylvania	Pa	44,478
15 Ohio State University	Ohio	44,134
16 Cornell University	N.Y.	44,123
17 University of Illinois—Urbana	Ill	42,163
18 Yale University	Conn	41,389
19 University of Chicago	Ill	39,967
20 New York University	N.Y.	37,259
21 Duke University	N.C.	34,157
22 University of Colorado	Colo	32,530
23 University of Southern California	Calif	32,086
24 Washington University	Mo	31,878
25 University of California—San Francisco	Calif	30,196
26 University of Pittsburgh	Pa	29,099
27 Purdue University	Ind	28,451
28 Yeshiva University	N.Y.	28,256
29 University of Miami	Fla	27,940
30 Pennsylvania State University	Pa	27,755
31 University of North Carolina—Chapel Hill	N.C.	27,400
32 University of Utah	Utah	26,837
33 University of Rochester	N.Y.	26,068
34 University of Alabama—Birmingham	Ala	25,728
35 Michigan State University	Mich	25,530
36 University of Iowa	Iowa	25,403
37 University of Florida	Fla	25,128
38 University of Hawaii	Hawaii	23,450
39 University of Texas—Austin	Tex	23,062
40 University of Missouri—Columbia	Mo	22,992
41 Case Western Reserve University	Ohio	21,967
42 Texas A&M University	Tex	21,716
43 University of Arizona	Ariz	21,658
44 Northwestern University	Ill	20,885
45 University of Kansas	Kans	20,440
46 California Institute of Technology	Calif	20,358
47 University of California—Davis	Calif	20,272
48 Boston University	Mass	20,115
49 Baylor College of Medicine	Tex	20,115
50 Louisiana State University—Baton Rouge	La	20,093
51 University of Kentucky	Ky	19,276
52 Temple University	Pa	18,260
53 University of Maryland—College Park	Md	17,846
54 University of Virginia	Va	17,750
55 University of Georgia	Ga	17,706
56 Colorado State University	Colo	16,282
57 Princeton University	N.J.	16,278
58 Oregon State University	Oreg	16,061
59 North Carolina State University—Raleigh	N.C.	15,995
60 Rutgers University	N.J.	15,734
61 University of Cincinnati	Ohio	15,655
62 George Washington University	D.C.	15,633
63 University of Tennessee—Knoxville	Tenn	15,366
64 Vanderbilt University	Tenn	15,164
65 Tulane University	La	14,688
66 SUNY—State University at Buffalo	N.Y.	14,631
67 University of Texas Cancer Center	Tex	14,450
68 Emory University	Ga	13,856
69 University of Connecticut	Conn	13,839
70 Georgetown University	D.C.	13,837
71 Indiana University—Indianapolis	Ind	13,836
72 Woods Hole Oceanographic Institution	Mass	13,241
73 University of Oregon—Eugene	Oreg	13,166
74 Rockefeller University	N.Y.	13,151
75 Wayne State University	Mich	12,910
76 University of Texas Health Science Center—San Antonio	Tex	12,855
77 University of New Mexico	N.Mex	12,633
78 University of Alaska	Alaska	12,547
79 University of Illinois—Medical Center	Ill	12,486
80 Indiana University—Bloomington	Ind	12,453
81 University of Oklahoma	Okla	12,117
82 University of Texas Health Center—Dallas	Tex	12,054
83 University of Texas Medical Branch—Galveston	Tex	11,984
84 College of Medicine and Dentistry of New Jersey	N.J.	11,816
85 Brown University	R.I.	11,782
86 West Virginia University	W.Va	11,772
87 University of Massachusetts—Amherst	Mass	11,760
88 University of Maryland—Baltimore	Md	11,741
89 Iowa State University of Science and Technology	Iowa	11,681
90 Meharry Medical College	Tenn	11,669
91 Virginia Polytechnic Institute	Va	11,616
92 New Mexico State University	N.Mex	11,458
93 Oklahoma State University	Okla	11,243
94 Auburn University	Ala	10,851
95 Gallaudet College	D.C.	10,521
96 Syracuse University	N.Y.	10,468
97 University of Puerto Rico—Rio Piedras	P.R.	10,440
98 Virginia Commonwealth University	Va	10,424
99 University of Nebraska Medical Center—Omaha	Nebr	10,312
100 Mississippi State University	Miss	10,291

Amounts shown represent awards to individual institutions. Awards to the administrative offices of university systems are excluded because final allocation of funds is unknown.

SOURCE: National Science Foundation

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R&D funding increased by 4 percent ($14 million) to $349 million. Other agencies showing increases in 1973 were USDA (up $5 million) and the Department of Commerce and the Environmental Protection Agency (EPA)—each up about $1 million. Reductions in academic R&D support were reported by DOD (5 percent), NASA (9 percent), and the Atomic Energy Commission (AEC) (2 percent).

Fellowships, Traineeships, and Training Grants

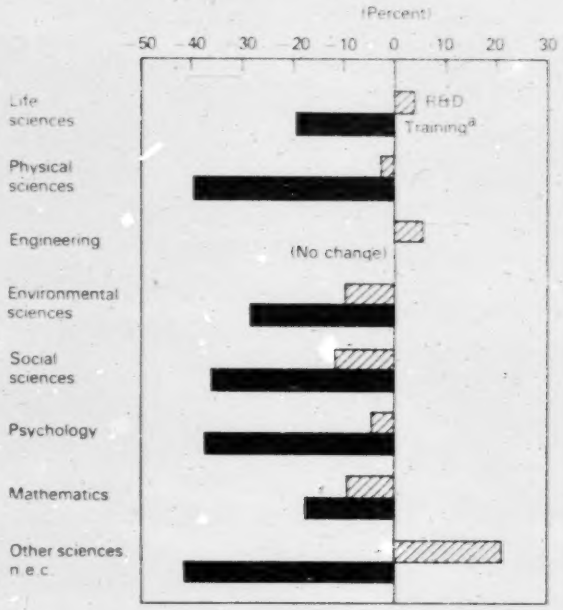
Government support for fellowships and traineeships in the sciences and engineering declined by $101 million, or 26 percent, to $287 million in 1973—three times the rate of decline registered in the 1971-72 period. The 1973 decline can be traced principally to HEW, which is the main source of Federal training obligations. HEW funding fell by 26 percent from $347 million in 1972 to $257 million in 1973. Dollar changes within HEW ranged from a $6 million increase in Social and Rehabilitation Service (SRS) training funds to a $41 million decline in funds obligated by NIH.

NSF's direct support of students declined by 43 percent to a level of $16 million. In contrast, increases were recorded by three agencies: EPA, NASA, and AEC.

Field of Science

Two of the seven major fields showed an increase in R&D support between 1972 and 1973. The life sciences, funded at a level of $934 million, rose by $38 million, or 4 percent; and engineering, with $204 million in R&D funding went up by $11 million, or 6 percent. In addition, projects classified under the "other sciences, nec" category evidenced a gain of 21 percent, a reflection of the increasing interdisciplinary character of federally sponsored R&D programs. From 1972 to 1973 relative declines in R&D field totals ranged from 11 percent in the social sciences to 2 percent in the physical sciences.

Changes in Federal R&D and training obligations to universities and colleges, by field of science: FY 1972-73



[a]Includes fellowships, traineeships, and training grants.
SOURCE: National Science Foundation

In 1973 funding levels among all fields of science except engineering, which remained stable, reflected the Federal-wide decline in fellowship and traineeship support.

The full report, *Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 1973*, scheduled for publication later this year, will be obtainable from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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